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Throughput and handover latency evaluation for multicast proxy mobile IPV6 (Article)

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Abstract

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The objective of this paper is to present performance analysis of a new enhanced mobile multicast network mobility management scheme. The initial developed network mobility management called Proxy Mobile IPv6 (PMIPv6) is based on unicast network support. This paper enabled multicast support in network mobility management and named it as MPMIPv6. Additionally this enhancement also provides better network performance with the new context transfer operations and fast reroute operations. In brief, this paper also describes other current mobile multicast schemes. The new scheme is evaluated using mathematical analysis and NS3.19 simulator. Theoretically this scheme reduces service recovery time, total signalling cost, handover latency, and packet loss for multicast communication. However for this paper, the analysed parameters are throughput and handover latency. Both mathematical and simulation results exhibit better network performance for multicast environment compared to the standard benchmark scheme.

Author keywords

Mobile multicast Multicast Network mobility Network mobility management

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